

Claims

- [c1] An impedance layer for use with a mobile phone to attenuate electro-magnetic waves caused by components within the mobile phone, said impedance layer comprising:
- a metallic layer coupled to the mobile phone such that it is positioned between the source of electro-magnetic waves and a user's hearing aid, the metallic layer for attenuating the electro-magnetic waves thereby reducing the effect the electro-magnetic waves have on the user's hearing aid during normal use of the mobile phone
- [c2] The impedance layer of [c1] claim 1 further comprising a dielectric substrate layer having inner and outer surfaces coupled with the metallic layer.
- [c3] The impedance layer of [c2] claim 2 wherein the metallic layer is coupled to the inner surface of the dielectric substrate layer.
- [c4] The impedance layer of [c2] claim 2 wherein the metallic layer is coupled to the outer surface of the dielectric substrate layer.
- [c5] The impedance layer of [c1] claim 1 further comprising multiple dielectric substrate layers wherein the metallic layer is buried between a pair of dielectric substrate layers.
- [c6] An impedance layer for use with a mobile phone to attenuate electro-magnetic waves caused by components within the mobile phone, said impedance layer comprising:
- a resistive layer coupled to the mobile phone such that it is positioned between the source of electro-magnetic waves and a user's hearing aid, the resistive layer for attenuating the electro-magnetic waves thereby

reducing the effect the electro-magnetic waves have on the user's hearing aid during normal use of the mobile phone.

- [c7] The impedance layer of [c6] claim 6 further comprising a dielectric substrate layer having inner and outer surfaces coupled with the resistive layer.
- [c8] The impedance layer of [c2] claim 2 wherein the resistive layer is coupled to the inner surface of the dielectric substrate layer.
- [c9] The impedance layer of [c2] claim 2 wherein the resistive layer is coupled to the outer surface of the dielectric substrate layer.
- [c10] The impedance layer of [c1] claim 1 further comprising multiple dielectric substrate layers wherein the resistive layer is buried between a pair of dielectric substrate layers.
- [c11] An impedance layer integrated into a mobile phone to attenuate scattering electro-magnetic waves caused by components within the mobile phone, said impedance layer comprising:
 - a metallic layer; and
 - a resistive layer coupled with the metallic layer and integrated into the front cover of the mobile phone,wherein the metallic layer guides electro-magnetic waves into the resistive layer where the electro-magnetic waves are attenuated thereby reducing the effect the electro-magnetic waves have on a user's hearing aid that is in close proximity to the electro-magnetic waves.